WHAT IS CLAIMED IS:

1. An optical switching system for switching one of a plurality of optical signals, the system comprising:

an optical cross-connect apparatus;

a control device coupled to the optical cross-connect apparatus;

a multiplexing device coupled to the optical cross-connect apparatus;

a trunk monitoring device disposed before the multiplexing device, the trunk monitoring device being coupled to at least a first fiber and a second fiber;

a fiber switch coupled between the multiplexing device and the trunk monitoring device, the fiber switch being adapted to switch an optical signal from the first fiber to the second fiber.

2. The system of claim 1 wherein the fiber switch is a two by two switch.

3. The system of claim 1 wherein the multiplexing device is a DWDM device.

4. The system of claim 1 wherein the optical cross-connect apparatus comprises at least an array of 256 mirror devices.

5. The system of claim 1 wherein the fiber switch is positioned after the trunk monitoring device.

6. The system of claim 1 wherein the first fiber is a primary fiber and the second fiber is a back up fiber.

7. The system of claim 1 wherein the control device couples to the trunk monitoring device.

8. The system of claim 1 wherein the control device couples to the fiber switch.

9. The system of claim 1 wherein the trunk monitoring device monitors defects selected from a fiber cut, a defective fiber, or other signal degrading causes.

10. The system of claim 1 wherein the system is coupled to a second system.

11. A method for monitoring and controlling optical signals through a long haul communication network, the method comprising:

monitoring optical signals from a first optical path on a first fiber using a trunk monitoring device, the trunk monitoring device being disposed before a multiplexing device coupled to an input port of a switching system;

detecting a defect in the optical signals using the trunk monitoring device;

determining if the defect is from a selected defect being monitored;

if the defect is a selected defect, initiating a process to switch the optical signals from the first path in the first fiber to a second path in a second fiber; and

transferring the optical signals from the first path to the second path.

12. The method of claim 11 wherein the selected defect is a fiber cut, a degraded fiber, or other signal degrading causes.

13. The method of claim 11 wherein the transferring is provided by switching the optical signals from the first path to the second path.

14. The method of claim 11 wherein the transferring is provided by a fiber switch coupled to the multiplexing device and the trunk monitoring device.

15. The method of claim 14 wherein the fiber switching is between the fiber switch and the first fiber and the second fiber.

16. A method for monitoring and controlling optical signals through an optical communication network, the method comprising:

monitoring optical signals from a first optical path on a first fiber using a trunk monitoring device, the trunk monitoring device being disposed before a multiplexing device coupled to an input port of a switching system;

detecting a defect in the optical signals using the trunk monitoring device;

determining if the defect is from a selected defect being monitored;

if the defect is a selected defect, initiating a process to switch the optical signals from the first path in the first fiber to a second path in a second fiber;

determining an available path for the second path from a pool of fibers, the pool of fibers having a plurality of optical paths;

selecting one of the available paths for the second path; and

transferring the optical signals from the first path to the second path.

17. The method of claim 16 wherein the selected defect is a fiber cut, a degraded fiber, or other signal degrading causes.

18. The method of claim 16 wherein the transferring is provided by switching the optical signals from the first path to the second path.

19. The method of claim 16 wherein the transferring is provided by a fiber switch coupled to the multiplexing device and the trunk monitoring device.

20. The method of claim 19 wherein the fiber switching is between the fiber switch and the first fiber and the second fiber.

21. A method for monitoring and controlling optical signals through an optical communication network, the method comprising:

monitoring optical signals from a first optical path on a first fiber using a trunk monitoring device, the trunk monitoring device being disposed before a multiplexing device coupled to an input port of a switching system;

detecting a defect in the optical signals using the trunk monitoring device;

determining if the defect is from a selected defect being monitored;

if the defect is a selected defect, initiating a process to switch the optical signals from the first path in the first fiber to a second path in a second fiber based upon predetermined selection criteria;

if the first optical path is for a first service level, suspending the process to switch the optical signals from the first path to the second path;

if the first optical path is for a second service level, transferring the optical signals from the first path to the second path.